

AD-A128 277

12831D LANCE MISSILE NUMBER 4848(U) ARMY ELECTRONICS  
RESEARCH AND DEVELOPMENT COMMAND WSMR NM ATMOSPHERIC  
SCIENCES LAB D C KELLER MAR 83 ERADCOM/ASL-DR-1296

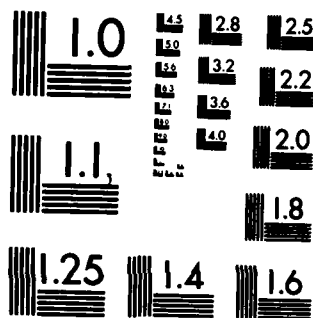
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1296	2. GOVT ACCESSION NO. A128 277	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 12831D LANCE Missile Number 4848		5. TYPE OF REPORT & PERIOD COVERED
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) White Sands Meteorological Team		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F6657020127-02
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cnd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		12. REPORT DATE March 1982
		13. NUMBER OF PAGES 30
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research and Development Cnd Adelphi, MD 20783		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)  Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  Meteorological data gathered for the launching of the 12831D LANCE, Missile Number 4848 are presented in tabular form.		

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## INTRODUCTION

128310 LANCE, Missile Number 4848, Round Number 383 MSL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0900 MST, 31 Mar 1963. The scheduled launch time was 0900 MST.

## DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

### a. Surface

(1) Standard surface observations to include pressure, temperature ( $^{\circ}\text{C}$ ), relative humidity, dew point ( $^{\circ}\text{C}$ ), density ( $\text{gm}/\text{m}^3$ ), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from an anemometer was also provided in the launch control room.

### b. Inner Air

(1) Low level wind data were obtained from a pilot-balloon observation at:

#### SITE AND ALTITUDE

WSD 10,000 ft

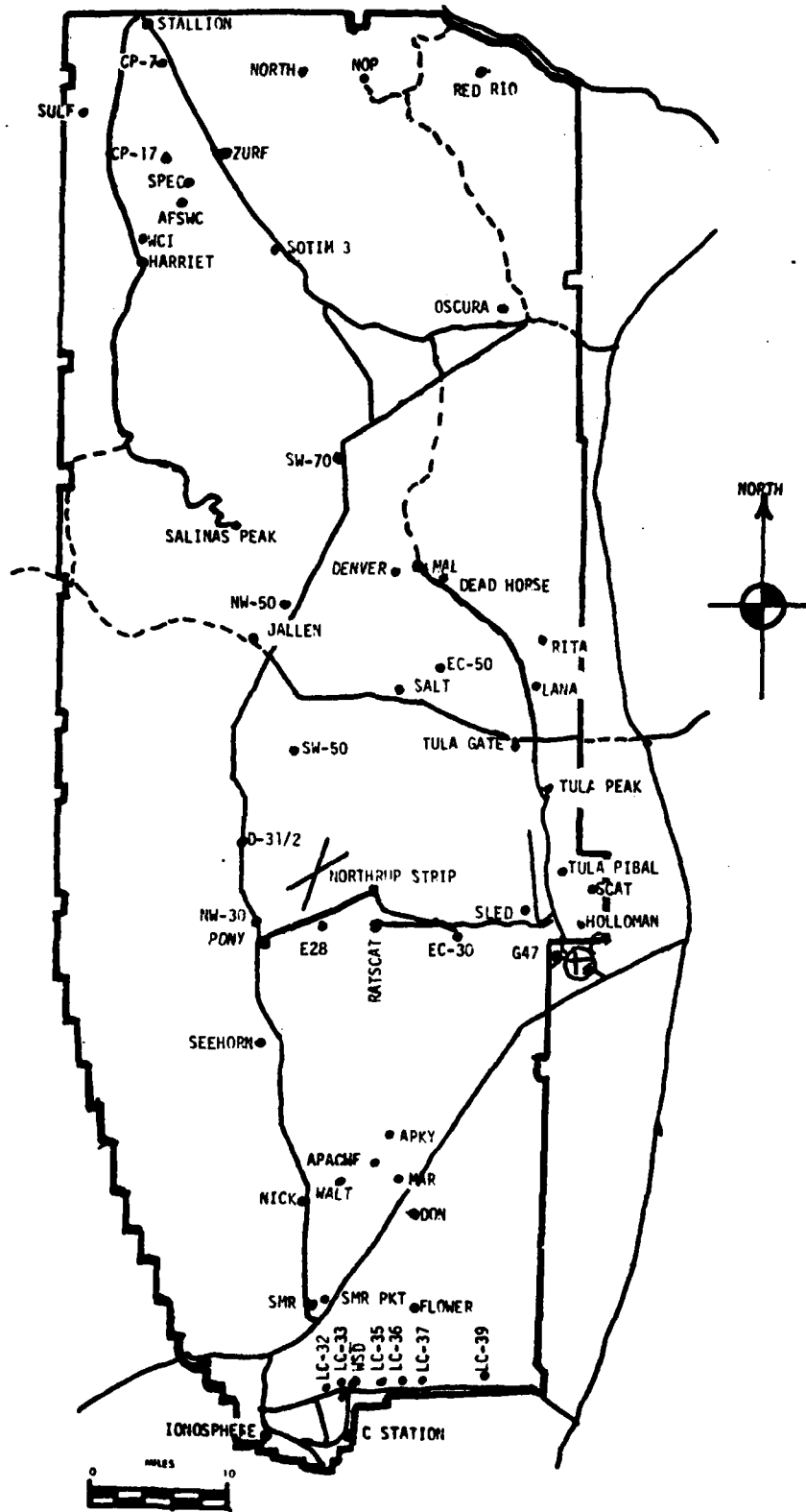
(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to high as possible in 500-foot increments.

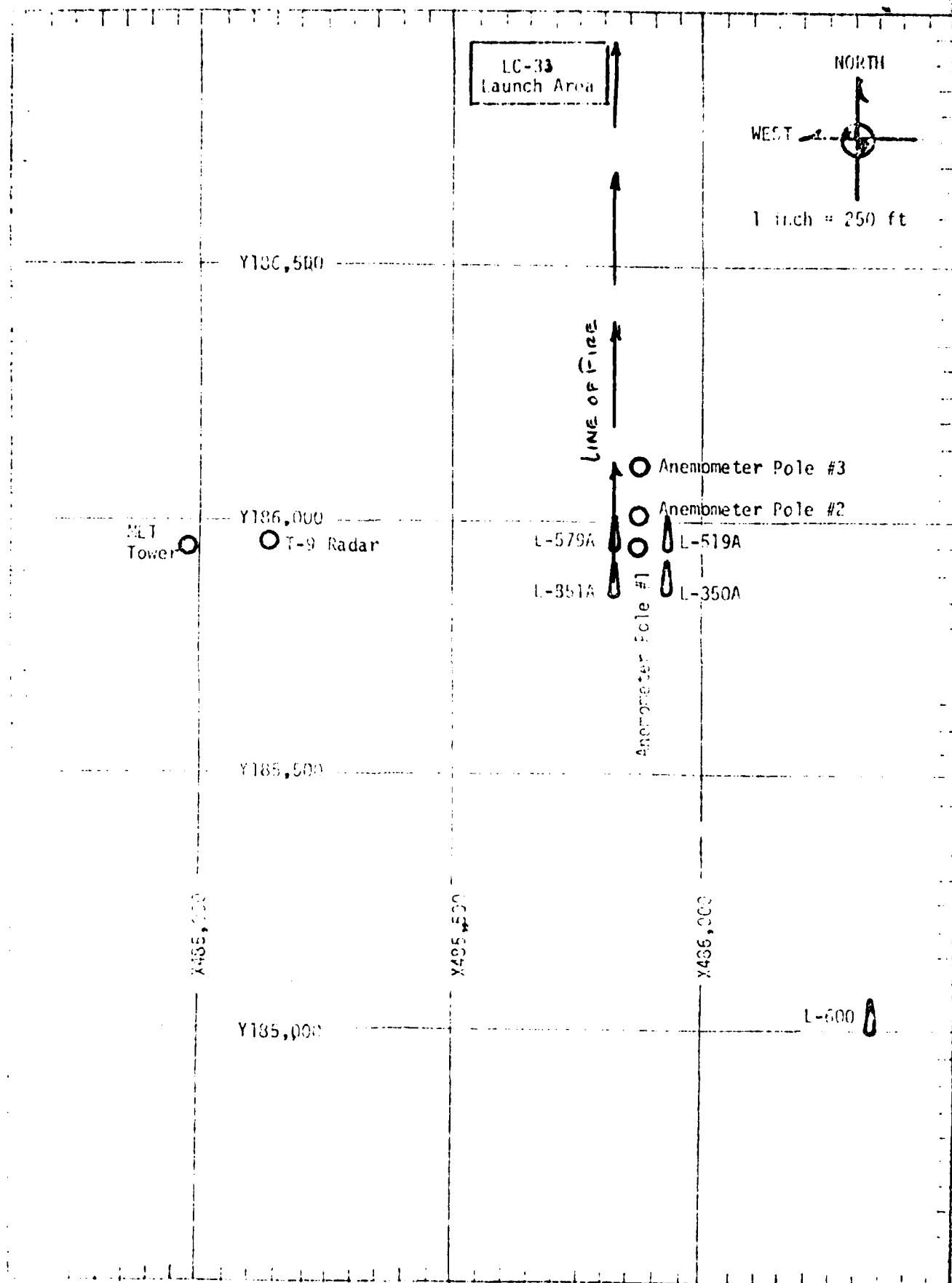
#### SITE AND TIME

WSD	0850 MST (Launch Area)
JALLEN	0730 MST (Mid-Course)
STALLION	0850 MST (Impact Area)

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
A	

# WSMR METEOROLOGICAL SITES







# PROJECT SURFACE OBSERVATION

TABLE 1		STATION 10-23								
DATE 31 Mar 83		X= 434, 002.00		Y= 105, 057.73		H= 3995.00				
TIME M. ST.		DAY	MONTH	YEAR						
	TIME	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m <sup>3</sup>	DIRECTION degs	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
	0000	977.2	20.0	3.1	33		000	00		00

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	HGT	AMT	TYPE	HGT	
	1	AC	13000				

## PSYCHROMETRIC COMPUTATION

TIME:	0000	
DRY BULB TEMP.	20.0	
WET BULB TEMP.	10.7	
WET BULB DEPR.	9.3	
DEW POINT	3.1	
RELATIVE HUMID.	33	

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,374.29 Y185,058.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.29 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30		CALM	-30		CALM	-30	140	01
-20		CALM	-20		CALM	-20	140	01
-10		CALM	-10		CALM	-10	140	01
0.0		CALM	0.0		CALM	0.0	135	01
+10		CALM	+10		CALM	+10	135	01

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30		CALM	-30		CALM
-20		CALM	-20		CALM
-10	000	02	-10		CALM
0.0	000	03	0.0	040	02
+10	000	11	+10	050	02

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30		CALM	-30		CALM
-20		CALM	-20		CALM
-10	000	02	-10		CALM
0.0	000	03	0.0		CALM
+10	075	02	+10		CALM

# PILOT BALLOON MEASURED WIND DATA

TABLE 1

RELEASED FROM USC

DATE 31 March 1969

TIME 2030 MST

COORDINATES (WSTM) X=

Y= 104.992.45

H= 3993.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO \_\_\_\_\_.

HEIGHTS ARE METERS AGL \_\_\_\_\_ OR FEET AGL \_\_\_\_\_.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
500	135	07
1000	MISC	MISC
1500	MISC	MISC
2000	MISC	MISC
2500	MISC	MISC
3000	MISC	MISC
3500	226	16
4000	253	09
4500	260	07
5000	260	07
5500	276	09
6000	281	09
6500	283	09
7000	283	09
7500	281	07
8000	279	07
8500	278	07
9000	279	07
9500	287	07
10000	266	09
10500	285	09
11000	269	10
11500	275	11
12000	279	12
12500	280	13
13000	280	13
13500	279	13
14000	275	13
14500	272	13
15000	266	13
15500	262	13

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
3000	257	13
3100	254	13
3200	252	14
3300	250	14
3400	248	14
3500	244	15
3600	239	16
3700	236	18
3800	235	19
3900	239	20
4000	246	21
4100	253	21
4200	260	23
4300	264	24
4400	267	25
4500	269	26
4600	271	26
4700	272	27
4800	272	28
4900	272	28
5000	272	29
5100	272	30
5200	273	31
5300	273	31
5400	274	32
5500	274	32
5600	274	32
5700	277	33
5800	275	33
5900	275	33

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
6000	276	33
6100	277	34
6200	277	35
6300	277	36
6400	277	37
6500	277	37
6600	276	37
6700	276	37
6800	275	36
6900	275	36
7000	275	34
7100	276	33
7200	277	33
7300	278	32
7400	279	32
7500	278	32
7600	278	32
7700	278	32
7800	279	31
7900	280	31
8000	281	31
8100	283	31
8200	284	31
8300	285	31
8400	285	32
8500	286	32
8600	286	32
8700	287	33
8800	287	33
8900	288	33

RELEASED FROM \_\_\_\_\_ USD

DATE 31 March 1983

TIME 0930 PST

[illegible][illegible][illegible]

TABLE

COMPUTER NET MESSAGE DATA  
31 March 1983

050 0050 MST	JALLEN 0730 MST	STALLION 0850 MST
NETC11324064	NETC11332065	NETC11332067
311580122976	311450140875	311530151243
00267003 20100026	00560005 20100026	00231006 20780043
01350003 20100066	01617004 20400065	01320012 20720833
02510012 20050041	02205007 20270030	02372011 20720813
03406013 20020002	03320000 20270030	03413016 20690076
04886021 20520056	04434021 20450054	04473017 20200731
05420025 20160011	05420010 20000010	05434025 20730637
06436020 20320060	06420026 20700060	06504036 20460646
07500032 20460020	07421031 20410023	07504041 20200607
08510036 20060050	08520031 20200500	08500042 20700570
09500040 20060055	09513041 20500053	09490045 20350535
10500010 20000020	10503042 20160010	10497047 20060501
11513041 20700027	11405047 20740040	11405046 20550060
12513040 20100041	12515040 20120030	12503040 20940024
13511053 20300014	13500050 20330033	13407052 20130060
14510050 20500033	14507061 20400032	
15510065 20000020	15523060 20660036	
16523006 20310040	16517003 20140040	
17521001 20700012	17521009 20160011	
18500020 20300002	18500005 20110010	
19513070 20670015	19500030 20170015	
20510025 20210013	20513070 20200013	
21510065 20700010	21500060 20550010	
22513017 20400006	22513070 20170005	
23510030 10000001	23501041 20500020	
24500020 20000060	24400015 20000060	
25510030 20100020	25472000 20210050	
26510011 20270050	26543014 20260040	

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STATION ALTITUDE 3989.00 FEET MSL  
31 MAR. 63 0850 HRS MST  
ASCENSION NO. 164

SIGNIFICANT LEVEL DATA  
0900020164  
WHITE SANDS  
TWO

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
875.9	3989.0	18.0	4.6	41.0
850.0	4828.9	15.7	-0.5	33.0
796.8	6625.3	14.7	-10.1	17.0
700.0	10170.6	7.3	-17.6	15.0
677.8	11037.6	5.0	-18.7	16.0
666.0	11508.1	4.9	-18.8	16.0
587.1	14836.5	-3.2	-21.8	22.0
500.0	18930.7	-13.9	-30.0	24.0
400.0	24364.9	-27.0	-42.2	22.0
336.3	28399.9	-36.7	-50.5	22.0
300.0	30967.1	-43.4		
285.7	32043.1	-46.0		
250.0	34942.0	-50.0		
236.5	36134.4	-51.0		
200.3	38720.4	-56.6		
200.0	39670.5	-56.5		
182.2	41631.8	-53.8		
168.0	43348.1	-54.3		
150.0	45725.4	-57.5		
113.0	51514.9	-65.6		
100.0	53956.8	-67.2		
82.5	57721.4	-74.2		
77.9	58825.0	-74.2		
74.6	59663.7	-71.3		
73.1	60065.2	-66.2		
70.0	60934.5	-65.2		
59.3	64291.3	-62.7		
57.4	64951.3	-64.6		
55.6	65599.1	-61.4		
50.0	67778.9	-60.5		
40.0	72383.8	-59.4		
39.0	72909.7	-57.8		
34.8	75285.8	-57.8		
32.9	76467.6	-53.8		
30.0	78430.9	-53.2		
28.8	79300.7	-53.2		

STATION ALTITUDE 3989.00 FEET MSL  
31 MAR. 83 0850 HRS MST  
ASCENSION NO. 164

UPPER AIR DATA  
0900020164  
WHITE SANDS

GEODEIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	875.9	18.0	4.6	41.0	1044.2	660.0	150.0	2.9	1.000271
4000.0	875.6	18.0	4.5	40.9	1043.9	665.9	151.4	2.8	1.000270
4500.0	860.0	16.6	1.5	36.1	1030.9	664.1	254.0	3.3	1.000261
5000.0	844.8	15.6	-1.2	31.5	1016.6	662.8	275.2	7.7	1.000252
5500.0	829.7	15.3	-3.5	27.0	999.8	662.4	280.6	12.3	1.000244
6000.0	814.9	15.0	-6.1	22.6	983.3	662.0	283.1	17.1	1.000237
6500.0	800.4	14.8	-9.2	18.1	967.0	661.5	278.9	17.2	1.000229
7000.0	786.0	13.9	-10.9	16.8	952.6	660.5	274.7	17.4	1.000224
7500.0	771.7	12.9	-11.9	16.5	938.8	659.3	274.9	19.5	1.000221
8000.0	757.8	11.8	-13.0	16.2	925.3	658.0	275.2	21.5	1.000217
8500.0	744.1	10.8	-14.0	15.9	911.9	656.8	275.6	23.2	1.000213
9000.0	730.6	9.7	-15.1	15.7	898.8	655.6	276.0	24.9	1.000209
9500.0	717.4	8.7	-16.2	15.4	885.9	654.3	276.0	26.1	1.000206
10000.0	704.4	7.7	-17.2	15.1	873.1	653.1	275.8	26.9	1.000202
10500.0	691.5	6.4	-18.0	15.4	860.9	651.7	275.6	27.6	1.000199
11000.0	678.7	5.1	-18.6	16.0	849.1	650.1	275.5	28.4	1.000196
11500.0	666.2	4.9	-18.8	16.0	834.0	649.9	275.3	29.2	1.000193
12000.0	653.7	3.7	-19.1	16.9	821.9	648.5	275.0	31.0	1.000190
12500.0	641.4	2.5	-19.5	17.8	810.1	647.0	274.7	33.0	1.000187
13000.0	629.4	1.3	-20.0	18.7	798.4	645.6	277.4	34.2	1.000184
13500.0	617.6	.1	-20.4	19.6	786.9	644.2	281.3	35.3	1.000181
14000.0	606.0	-1.2	-20.9	20.5	775.6	642.7	284.3	35.6	1.000179
14500.0	594.6	-2.4	-21.5	21.4	764.5	641.3	287.0	35.4	1.000176
15000.0	583.3	-3.6	-22.2	22.1	753.5	639.8	287.2	36.2	1.000173
15500.0	572.0	-4.9	-23.1	22.3	742.5	638.2	286.3	37.3	1.000170
16000.0	560.9	-6.2	-24.1	22.6	731.7	636.7	286.0	38.3	1.000168
16500.0	550.0	-7.5	-25.1	22.8	721.0	635.1	286.0	39.4	1.000165
17000.0	539.3	-8.9	-26.1	23.1	710.5	633.5	285.7	39.8	1.000162
17500.0	528.9	-10.2	-27.1	23.3	700.2	631.9	285.3	39.4	1.000160
18000.0	518.6	-11.5	-28.1	23.5	690.1	630.3	285.3	39.6	1.000157
18500.0	508.5	-12.8	-29.2	23.8	680.1	628.8	285.9	40.3	1.000155
19000.0	498.6	-14.1	-30.2	24.0	670.1	627.2	286.8	41.2	1.000152
19500.0	488.4	-15.3	-31.3	23.8	659.6	625.7	287.9	42.4	1.000149
20000.0	478.5	-16.5	-32.4	23.6	649.3	624.2	289.2	43.6	1.000147
20500.0	468.8	-17.7	-33.5	23.4	639.1	622.8	291.1	44.6	1.000144
21000.0	459.3	-18.9	-34.7	23.2	629.1	621.3	292.7	45.7	1.000142
21500.0	449.9	-20.1	-35.8	23.1	619.2	619.8	293.2	47.3	1.000140
22000.0	440.8	-21.3	-36.9	22.9	609.6	618.3	293.3	48.9	1.000137
22500.0	431.8	-22.5	-38.0	22.7	600.1	616.8	291.6	49.9	1.000135
23000.0	423.1	-23.7	-39.1	22.5	590.7	615.3	290.2	50.9	1.000133

STATION ALTITUDE 3989.00 FEET MSL  
31 MAR. 83 0850 HRS MST  
ASCENSION NO. 164

UPPER AIR DATA  
0900020164  
WHITE SANDS  
101.7 5000

GEODETIC COORDINATES  
32-40043 LAT DEG  
106-37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	414.5	-24.9	-40.2	22.3	581.5	613.8	289.8	51.3	1.000131
24000.0	406.0	-26.1	-41.3	22.1	572.5	612.4	289.6	51.9	1.000129
24500.0	397.7	-27.3	-42.4	22.0	563.5	610.9	289.9	52.7	1.000126
25000.0	389.2	-28.5	-43.5	22.0	554.2	609.4	289.2	52.9	1.000124
25500.0	381.0	-29.7	-44.5	22.0	545.1	607.9	287.3	52.4	1.000122
26000.0	372.8	-30.9	-45.6	22.0	536.2	606.3	285.3	52.5	1.000120
26500.0	364.9	-32.1	-46.6	22.0	527.4	604.8	283.4	53.1	1.000118
27000.0	357.2	-33.3	-47.6	22.0	518.8	603.3	283.7	55.2	1.000116
27500.0	349.6	-34.5	-48.7	22.0	510.3	601.8	284.4	57.7	1.000114
28000.0	342.1	-35.7	-49.7	22.0	502.0	600.3	285.6	57.1	1.000112
28500.0	334.8	-37.0	-51.1	21.1**	493.8	598.7	286.9	56.1	1.000110
29000.0	327.4	-38.3	-54.1	16.9**	485.6	597.1	287.6	56.0	1.000108
29500.0	320.2	-39.6	-57.6	12.6**	477.6	595.4	288.3	56.0	1.000107
30000.0	313.2	-40.9	-61.8	8.3**	469.7	593.7	289.2	59.0	1.000105
30500.0	306.3	-42.2	-68.1	4.0**	462.0	592.1	290.0	62.1	1.000103
31000.0	299.6	-43.5			454.4	590.4	290.8	64.5	1.000101
31500.0	292.8	-44.7			446.5	588.8	291.6	67.0	1.000099
32000.0	286.3	-45.9			438.8	587.3	291.4	68.4	1.000098
32500.0	279.8	-46.6			430.2	586.3	291.1	69.7	1.000096
33000.0	273.4	-47.3			421.7	585.4	290.6	70.6	1.000094
33500.0	267.2	-48.0			413.4	584.5	290.4	71.8	1.000092
34000.0	261.1	-48.7			405.2	583.7	291.6	73.6	1.000090
34500.0	255.1	-49.4			397.2	582.8	293.0	75.8	1.000088
35000.0	249.3	-50.0			389.3	581.9	294.9	78.6	1.000087
35500.0	243.6	-50.5			381.1	581.4	295.9	82.3	1.000085
36000.0	238.0	-50.9			373.0	580.8	296.1	86.8	1.000083
36500.0	232.4	-51.8			365.8	579.6	295.6	91.4	1.000081
37000.0	227.0	-52.9			359.0	578.2	294.8	95.9	1.000080
37500.0	221.7	-54.0			352.4	576.8	294.2	97.5	1.000078
38000.0	216.5	-55.0			345.9	575.4	293.7	96.9	1.000077
38500.0	211.5	-56.1			339.5	573.9	292.8	95.2	1.000076
39000.0	206.5	-56.6			332.2	573.3	291.3	91.2	1.000074
39500.0	201.6	-56.5			324.3	573.4	289.7	87.4	1.000072
40000.0	196.9	-56.0			315.9	574.0	287.5	86.6	1.000070
40500.0	192.3	-55.4			307.5	574.9	285.4	85.8	1.000069
41000.0	187.8	-54.7			299.4	575.8	284.1	85.3	1.000067
41500.0	183.3	-54.0			291.4	576.7	283.2	84.9	1.000065
42000.0	179.1	-53.9			284.5	576.8	282.5	83.9	1.000063
42500.0	174.9	-54.1			278.0	576.7	282.4	82.2	1.000062
43000.0	170.8	-54.2			271.7	576.5	282.4	80.6	1.000061

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.



STATION ALTITUDE 3989.00 FEET, MSL  
31 MAR. 83  
ASCENSION NO. 164

UPPER DATA  
0900020164  
WHITE SANDS

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	160.8	-54.5		265.7	576.1	282.9	81.0	1.000059
44000.0	162.9	-55.2		260.3	575.2	283.3	81.3	1.000058
44500.0	159.0	-55.9		254.9	574.3	282.9	82.7	1.000057
45000.0	155.3	-56.5		249.7	573.4	282.2	84.3	1.000056
45500.0	151.6	-57.2		244.6	572.5	281.2	85.6	1.000054
46000.0	148.0	-57.9		239.5	571.6	279.9	86.8	1.000053
46500.0	144.4	-58.6		234.5	570.7	278.9	88.0	1.000052
47000.0	140.9	-59.3		229.6	569.7	280.2	88.9	1.000051
47500.0	137.5	-60.0		224.7	568.8	281.5	89.8	1.000050
48000.0	134.2	-60.7		220.0	567.9	283.1	88.8	1.000049
48500.0	131.0	-61.4		215.4	566.9	285.0	87.1	1.000048
49000.0	127.8	-62.1		210.9	566.0	286.9	85.5	1.000047
49500.0	124.7	-62.8		206.5	565.0	286.9	81.8	1.000046
50000.0	121.7	-63.5		202.2	564.1	287.0	78.1	1.000045
50500.0	118.6	-64.2		198.0	563.2	286.9	74.3	1.000044
51000.0	115.9	-64.9		193.8	562.2	286.5	70.7	1.000043
51500.0	113.1	-65.6		189.8	561.3	286.1	67.0	1.000042
52000.0	110.3	-65.9		185.4	560.8	286.0	62.6	1.000041
52500.0	107.6	-66.2		181.1	560.4	286.2	57.8	1.000040
53000.0	104.9	-66.6		176.9	559.9	286.4	53.1	1.000039
53500.0	102.3	-66.9		172.8	559.5	286.6	50.0	1.000038
54000.0	99.8	-67.3		168.8	559.0	286.9	46.9	1.000038
54500.0	97.3	-68.2		165.3	557.7	286.9	44.0	1.000037
55000.0	94.8	-69.1		161.9	556.4	286.6	41.3	1.000036
55500.0	92.4	-70.1		158.5	555.2	286.2	38.5	1.000035
56000.0	90.1	-71.0		155.2	553.9	285.7	35.5	1.000035
56500.0	87.8	-71.9		152.0	552.6	285.1	32.3	1.000034
57000.0	85.6	-72.9		148.9	551.4	284.4	29.1	1.000033
57500.0	83.4	-73.8		145.8	550.1	284.2	27.9	1.000032
58000.0	81.3	-74.2		142.4	549.5	284.1	26.9	1.000032
58500.0	79.2	-74.2		138.7	549.5	284.0	26.4	1.000031
59000.0	77.2	-73.6		134.8	550.3	284.3	27.4	1.000030
59500.0	75.2	-71.9		130.2	552.7	284.5	28.5	1.000029
60000.0	73.3	-67.0		124.0	554.3	285.0	30.2	1.000028
60500.0	71.5	-65.7		120.1	561.1	285.4	32.2	1.000027
61000.0	69.8	-65.2		116.9	561.9	285.8	34.2	1.000026
61500.0	68.1	-64.8		113.8	562.4	286.1	37.3	1.000025
62000.0	66.4	-64.4		110.8	562.9	286.4	40.4	1.000025
62500.0	64.8	-64.0		107.9	563.4	286.6	43.2	1.000024
63000.0	63.2	-63.7		105.1	563.9	286.8	45.2	1.000023

STATION ALTITUDE 3489.00 Feet MSL  
31 MAR. 83 0850 HRS MST  
ASCENSION NO. 164

UPPER AIR DATA  
0900020164  
WHITE SANDS

TYPE: 1

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	61.7	-63.3		102.4	564.4	286.9	47.3	1.000023
64000.0	60.2	-62.9		99.7	564.9	287.0	45.8	1.000022
64500.0	58.7	-63.3		97.4	564.4	287.1	39.9	1.000022
65000.0	57.3	-64.4		95.5	562.9	287.3	33.9	1.000021
65500.0	55.9	-61.9		92.1	566.2	287.4	27.3	1.000021
66000.0	54.5	-61.2		89.6	567.1	287.4	20.0	1.000020
66500.0	53.2	-61.0		87.4	567.4	287.4	12.7	1.000019
67000.0	51.9	-60.8		85.2	567.7	287.3	5.6	1.000019
67500.0	50.7	-60.6		83.1	568.0	109.7	1.4	1.000018
68000.0	49.5	-60.4		81.0	568.2	108.1	8.4	1.000018
68500.0	48.3	-60.3		79.0	568.3	108.2	17.2	1.000018
69000.0	47.1	-60.2		77.1	568.5	108.3	27.0	1.000017
69500.0	46.0	-60.1		75.2	568.7	108.4	36.7	1.000017
70000.0	44.9	-60.0		73.4	568.8	110.0	36.5	1.000016
70500.0	43.8	-59.8		71.6	569.0	113.2	31.0	1.000016
71000.0	42.8	-59.7		69.8	569.1	117.8	25.6	1.000016
71500.0	41.8	-59.6		68.1	569.3	127.9	14.1	1.000015
72000.0	40.8	-59.5		66.4	569.4	229.3	5.2	1.000015
72500.0	39.8	-59.0		64.7	570.0	275.4	19.1	1.000014
73000.0	38.8	-57.8		62.8	571.7	284.7	29.1	1.000014
73500.0	37.9	-57.8		61.3	571.7	291.8	35.5	1.000014
74000.0	37.0	-57.8		59.9	571.7	296.6	42.3	1.000013
74500.0	36.1	-57.8		58.5	571.7	301.8	38.1	1.000013
75000.0	35.3	-57.8		57.1	571.7	313.6	24.5	1.000013
75500.0	34.4	-57.1		55.5	572.7	347.1	14.1	1.000012
76000.0	33.6	-55.4		53.8	574.9	79.0	22.6	1.000012
76500.0	32.8	-53.8		52.2	577.0	97.4	50.3	1.000012
77000.0	32.1	-53.6		50.9	577.2			1.000011
77500.0	31.3	-53.5		49.7	577.4			1.000011
78000.0	30.6	-53.3		48.5	577.6			1.000011
78500.0	29.9	-53.2		47.4	577.8			1.000011
79000.0	29.2	-53.2		46.3	577.8			1.000010

STATION ALTITUDE 3989.00 F. L. MSL  
31 MAR. 83 0850 HRC MST  
ASCENSION NO. 164

INC 3 LEVELS  
0500Z J164  
WHITE SANDS

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4825.	15.7	33.	271.3	6.1
800.0	6509.	-9.3	18.	278.8	17.2
750.0	8286.	-13.6	16.	275.4	22.5
700.0	10161.	-17.6	15.	275.8	27.1
650.0	12144.	-19.2	17.	274.9	31.6
600.0	14253.	-21.2	21.	285.7	35.5
550.0	16499.	-25.1	23.	286.0	39.4
500.0	18904.	-30.0	24.	286.6	41.0
450.0	21499.	-35.8	23.	293.3	47.4
400.0	24324.	-42.2	22.	289.9	52.5
350.0	27436.	-43.4	22.	284.4	57.6
300.0	30906.	-50.0		290.8	64.3
250.0	34866.	-56.5		294.6	78.2
200.0	39575.	-54.0		289.0	87.1
175.0	42378.	-57.5		282.4	82.3
150.0	45603.	-62.7		280.7	86.1
125.0	49335.	-67.2		286.9	82.1
100.0	53791.	-74.2		286.9	47.3
80.0	58122.	-65.2		284.0	28.4
70.0	60727.	-62.9		285.7	33.8
60.0	63824.	-60.5		287.0	45.6
50.0	67526.	-59.4		108.3	4.8
40.0	72097.	-53.2		270.8	14.4
30.0	78098.				

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

SI (FI) LEVEL DATA  
073000063  
JALLEN

STATION ALTITUDE 4051.00 FFE MSL  
31 MAR. 83 0730 HRS MST  
ASCENSION NO. 63

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
875.3	7.9	-0.1	57.0
870.1	8.5	-2.4	46.0
865.8	8.8	-1.9	47.0
860.6	12.1	.2	44.0
850.0	13.9	-3.8	29.0
820.8	14.3	-6.0	24.0
766.8	11.8	-8.1	24.0
724.2	8.8	-14.9	17.0
700.0	6.5	-17.5	16.0
668.8	3.4	-20.0	16.0
641.4	2.1	-21.1	16.0
606.2	-1.3	-23.8	16.0
571.6	-5.1	-22.0	25.0
500.0	-14.2	-29.0	27.0
420.5	-24.7	-39.0	25.0
400.0	-27.7	-42.0	24.0
377.7	-30.3	-45.9	20.0
343.7	-36.3	-49.1	25.0
326.9	-39.0	-51.5	25.0
300.0	-44.3		
271.2	-49.2		
259.5	-51.4		
250.0	-51.9		
239.0	-51.2		
212.0	-57.3		
200.0	-55.0		
183.9	-51.1		
162.0	-53.2		
150.0	-57.1		
135.2	-59.5		
129.5	-62.3		
111.0	-68.4		
100.0	-70.6		
86.2	-73.0		
80.3	-68.4		
77.7	-62.6		
70.0	-56.1		
64.3	-54.9		
61.6	-51.1		
50.0	-40.6		

STATION ALTITUDE 4051.00 FEET MSL  
 31 MAR. 83 0730 HRS MST  
 ASCENSION NO. 63

STATION EVEL DATA  
 063  
 JALLEN

COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT
44.9	70013.5	-60.2		
40.2	72295.4	-59.7		
33.2	76267.5	-55.6		
30.0	78426.0	-55.0		
20.2	86829.2	-52.8		

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

IPP DATA  
090000J063  
JALLEN  
-000000

STATION ALTITUDE 4051.00 FEE MSL  
31 MAR. 83 0730 HRS MST  
ASCENSION NO. 63

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	875.3	7.9	-1	57.0	1082.1	654.0	320.0	5.1	1.000270
4500.0	861.0	11.9	.1	44.2	1049.5	658.6	294.7	3.4	1.000263
5000.0	845.5	14.0	-4.1	28.2	1023.9	660.8	246.0	3.2	1.000249
5500.0	830.4	14.2	-5.2	25.7	1004.9	661.0	214.3	4.9	1.000243
6000.0	815.5	14.1	-6.2	24.0	987.4	660.8	204.3	7.2	1.000238
6500.0	800.9	13.4	-6.7	24.0	971.9	660.0	220.0	10.1	1.000234
7000.0	786.5	12.7	-7.3	24.0	956.7	659.3	228.4	13.4	1.000230
7500.0	772.3	12.1	-7.9	24.0	941.8	658.5	235.5	16.4	1.000226
8000.0	758.4	11.2	-9.3	22.6	927.7	657.5	240.4	19.6	1.000221
8500.0	744.6	10.3	-11.4	20.4	914.1	656.3	248.4	19.7	1.000216
9000.0	731.1	9.3	-13.7	18.2	900.7	655.1	256.7	19.7	1.000211
9500.0	717.8	8.2	-15.5	16.7	887.9	653.8	265.1	17.7	1.000207
10000.0	704.6	6.9	-17.0	16.2	875.6	652.5	273.8	17.0	1.000203
10500.0	691.7	5.7	-18.1	16.0	863.4	650.8	277.5	19.4	1.000199
11000.0	678.9	4.4	-19.2	16.0	851.4	649.3	279.7	22.1	1.000196
11500.0	666.3	3.3	-20.1	16.0	839.1	647.9	280.3	25.2	1.000193
12000.0	653.9	2.7	-20.6	16.0	825.2	647.3	280.1	27.0	1.000190
12500.0	641.7	2.1	-21.0	16.0	811.5	646.6	279.0	27.4	1.000186
13000.0	629.6	1.0	-22.0	16.0	799.6	645.2	278.8	29.2	1.000183
13500.0	617.8	-2	-22.9	16.0	787.9	643.9	279.1	31.9	1.000180
14000.0	606.2	-1.3	-23.8	16.0	776.4	642.5	283.9	34.3	1.000177
14500.0	594.6	-2.5	-23.0	16.0	765.0	641.1	288.5	36.8	1.000175
15000.0	583.3	-3.8	-22.4	21.9	753.9	639.6	290.8	37.3	1.000173
15500.0	572.2	-5.0	-22.0	24.8	742.9	638.1	291.2	38.3	1.000171
16000.0	561.1	-6.4	-23.0	25.3	732.2	636.5	289.1	39.9	1.000168
16500.0	550.1	-7.7	-24.0	25.6	721.5	634.9	288.3	41.2	1.000165
17000.0	539.4	-9.0	-25.0	25.9	711.1	633.3	288.3	42.2	1.000163
17500.0	528.9	-10.4	-26.1	26.2	700.8	631.7	287.2	42.5	1.000160
18000.0	518.6	-11.7	-27.1	26.5	690.7	630.0	285.7	42.5	1.000157
18500.0	508.4	-13.1	-28.2	26.7	680.7	628.4	284.0	44.0	1.000155
19000.0	498.5	-14.4	-29.2	27.0	670.8	626.8	282.8	45.4	1.000152
19500.0	488.4	-15.6	-30.4	26.7	660.4	625.3	283.9	45.9	1.000150
20000.0	478.5	-16.9	-31.6	26.5	650.2	623.8	284.8	45.9	1.000147
20500.0	468.6	-18.1	-32.7	26.3	640.1	622.3	285.2	45.1	1.000145
21000.0	459.3	-19.3	-33.9	26.0	630.3	620.7	286.2	45.9	1.000142
21500.0	450.0	-20.6	-35.1	25.8	620.6	619.2	287.5	48.1	1.000140
22000.0	440.9	-21.8	-36.3	25.5	611.0	617.7	289.4	50.5	1.000138
22500.0	432.0	-23.1	-37.4	25.3	601.6	616.1	291.4	53.0	1.000135
23000.0	423.2	-24.3	-38.6	25.1	592.4	614.6	291.7	54.1	1.000133
23500.0	414.5	-25.6	-39.8	24.7	583.1	613.1	291.4	54.5	1.000131

STATION ALTITUDE 4051.00 FFF: MSL  
31 MAR. 63 0730 HRS MST  
ASCENSION NO. 63

JPP DATA  
0900030063  
JALLEN

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(TN))	SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.9	-26.8	-41.1	24.3	574.9	611.5	289.7	55.2	1.000129
24500.0	397.4	-28.0	-42.4	23.5	564.7	610.0	287.7	56.0	1.000127
25000.0	389.1	-29.0	-43.8	22.1	555.0	608.8	286.7	56.6	1.000124
25500.0	380.9	-29.9	-45.3	20.6	545.5	607.2	285.6	57.1	1.000122
26000.0	372.8	-31.1	-46.3	20.7	536.6	606.1	284.0	56.9	1.000120
26500.0	364.8	-32.5	-47.0	21.8	528.1	604.4	283.1	57.3	1.000118
27000.0	357.0	-33.9	-47.7	23.0	519.8	602.6	282.9	58.3	1.000116
27500.0	349.4	-35.3	-48.5	24.1	511.6	600.9	283.8	59.7	1.000114
28000.0	341.9	-36.6	-49.3	25.0	503.4	599.2	285.2	61.2	1.000113
28500.0	334.4	-37.8	-50.4	25.0	494.9	597.7	285.9	61.5	1.000111
29000.0	327.1	-39.0	-51.4	25.0	486.6	596.2	286.6	61.6	1.000109
29500.0	319.9	-40.3	-55.0	18.7**	478.7	594.4	287.6	61.3	1.000107
30000.0	312.8	-41.7	-59.6	12.2**	470.9	592.7	288.8	61.2	1.000105
30500.0	305.9	-43.1	-66.4	5.7**	463.2	590.9	290.4	62.3	1.000103
31000.0	299.1	-44.4			455.6	589.2	292.0	63.6	1.000101
31500.0	292.3	-45.6			447.4	587.7	293.2	65.4	1.000100
32000.0	285.7	-46.7			439.5	586.3	293.9	67.6	1.000098
32500.0	279.2	-47.8			431.6	584.8	294.0	70.2	1.000096
33000.0	272.9	-48.9			423.9	583.4	293.4	72.4	1.000094
33500.0	266.7	-50.0			416.4	581.9	292.4	74.4	1.000093
34000.0	260.5	-51.2			408.9	580.4	291.6	75.6	1.000091
34500.0	254.5	-51.7			400.3	579.8	290.9	76.3	1.000089
35000.0	248.6	-51.8			391.3	579.6	291.0	81.5	1.000087
35500.0	242.9	-51.5			381.6	580.1	291.5	88.5	1.000085
36000.0	237.2	-51.6			373.0	579.9	292.2	97.6	1.000083
36500.0	231.7	-52.8			366.3	578.3	292.8	107.2	1.000082
37000.0	226.3	-52.0			359.7	576.7	293.3	106.1	1.000080
37500.0	221.0	-55.2			353.2	575.2	293.9	104.5	1.000079
38000.0	215.8	-56.4			346.8	573.6	293.6	101.0	1.000077
38500.0	210.7	-57.1			339.8	572.7	293.2	97.3	1.000076
39000.0	205.8	-56.1			330.3	573.9	291.6	98.0	1.000074
39500.0	200.9	-55.2			321.1	575.2	289.9	99.3	1.000072
40000.0	196.2	-54.1			312.1	576.6	288.5	99.1	1.000070
40500.0	191.7	-53.0			303.3	578.0	287.1	98.7	1.000068
41000.0	187.2	-51.9			294.8	579.4	286.6	97.2	1.000066
41500.0	182.9	-51.2			287.0	580.4	286.2	95.5	1.000064
42000.0	178.6	-51.6			280.8	579.9	286.3	93.2	1.000063
42500.0	174.5	-52.0			274.8	579.4	286.5	90.9	1.000061
43000.0	170.4	-52.4			268.9	578.9	286.7	86.5	1.000060
43500.0	166.5	-52.7			263.2	578.4	286.9	81.8	1.000059

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL  
31 MAR. 83 0730 HRS MST  
ASCENSION NO. 63

IPP DATA  
05JG00063  
JALLEN  
05110 00000

CODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	162.6	-53.1		257.5	577.9	287.1	79.4	1.000057
44500.0	158.8	-54.2		252.7	576.5	287.2	78.0	1.000056
45000.0	155.1	-55.4		248.1	574.9	287.2	78.3	1.000055
45500.0	151.5	-56.6		243.7	573.3	287.2	80.2	1.000054
46000.0	147.9	-57.4		238.8	572.2	287.3	81.5	1.000053
46500.0	144.4	-58.0		233.7	571.5	287.3	80.8	1.000052
47000.0	140.9	-58.5		228.7	570.7	287.2	80.2	1.000051
47500.0	137.6	-59.1		223.9	570.0	287.3	78.7	1.000050
48000.0	134.3	-59.9		219.4	568.8	287.3	77.1	1.000049
48500.0	131.0	-61.5		215.7	566.7	287.3	75.6	1.000048
49000.0	127.8	-62.8		211.7	565.0	287.3	74.4	1.000047
49500.0	124.7	-63.8		207.5	563.7	287.3	73.1	1.000046
50000.0	121.6	-64.8		203.4	562.4	287.1	72.3	1.000045
50500.0	118.6	-65.8		199.3	561.0	287.0	71.6	1.000044
51000.0	115.7	-66.8		195.3	559.7	286.7	70.6	1.000043
51500.0	112.9	-67.7		191.4	558.4	286.4	69.6	1.000043
52000.0	110.1	-68.6		187.5	557.2	286.0	68.5	1.000042
52500.0	107.3	-69.1		183.2	556.5	285.8	69.8	1.000041
53000.0	104.6	-69.6		179.1	555.8	285.6	71.0	1.000040
53500.0	102.0	-70.2		175.1	555.0	285.5	73.4	1.000039
54000.0	99.4	-70.7		171.1	554.3	285.5	76.0	1.000038
54500.0	96.9	-71.1		167.1	553.8	285.6	76.6	1.000037
55000.0	94.5	-71.5		163.2	553.2	285.7	76.2	1.000036
55500.0	92.1	-71.9		159.4	552.6	285.9	74.6	1.000035
56000.0	89.7	-72.4		155.7	552.0	286.0	71.9	1.000035
56500.0	87.4	-72.8		152.0	551.5	286.2	68.5	1.000034
57000.0	85.2	-72.3		147.8	552.2	286.3	60.5	1.000033
57500.0	83.1	-70.6		142.9	554.4	286.5	52.6	1.000032
58000.0	81.0	-69.0		138.2	556.7	286.5	42.7	1.000031
58500.0	79.0	-65.5		132.5	561.4	286.6	32.0	1.000030
59000.0	77.0	-62.9		127.6	564.9	286.4	22.7	1.000028
59500.0	75.2	-63.7		125.0	563.8	285.1	17.6	1.000028
60000.0	73.3	-64.5		122.4	562.7	282.8	12.5	1.000027
60500.0	71.5	-65.4		119.9	561.6	279.2	12.9	1.000027
61000.0	69.8	-66.1		117.4	560.6	276.2	14.3	1.000026
61500.0	68.1	-65.7		114.3	561.1	274.6	16.3	1.000025
62000.0	66.4	-65.4		111.3	561.6	274.0	18.7	1.000025
62500.0	64.8	-65.0		108.4	562.1	273.5	20.8	1.000024
63000.0	63.2	-63.3		104.9	564.3	273.3	21.6	1.000023
63500.0	61.6	-61.2		101.3	567.2	273.1	22.5	1.000023



STATION ALTITUDE 4051.00 FEET MSL  
31 MAR. 83 0730 HRS MST  
ASCENSION NO. 63

JPE DATA  
0900030063  
JALLEN

GEODETIC COORDINATES  
33.14712 LAT DEG  
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.2	-61.0		98.8	567.4	274.4	20.1	1.000022
64500.0	58.7	-61.0		96.4	567.5	276.2	17.6	1.000021
65000.0	57.3	-60.9		94.1	567.5	279.8	14.6	1.000021
65500.0	55.9	-60.9		91.8	567.6	287.4	11.2	1.000020
66000.0	54.6	-60.8		89.5	567.7	300.4	8.3	1.000020
66500.0	53.3	-60.8		87.4	567.8	306.5	7.6	1.000019
67000.0	52.0	-60.7		85.2	567.8	313.6	7.1	1.000019
67500.0	50.7	-60.6		83.2	567.9	315.8	7.5	1.000019
68000.0	49.5	-60.6		81.1	568.0	313.7	8.5	1.000018
68500.0	48.3	-60.5		79.2	568.1	311.7	9.6	1.000018
69000.0	47.2	-60.4		77.2	568.3	306.3	11.2	1.000017
69500.0	46.0	-60.3		75.3	568.4	302.3	12.8	1.000017
70000.0	44.9	-60.2		73.5	568.5	299.0	13.4	1.000016
70500.0	43.9	-60.1		71.7	568.6	295.5	13.0	1.000016
71000.0	42.8	-60.0		70.0	568.8	292.0	12.6	1.000016
71500.0	41.8	-59.9		68.2	568.9	299.1	7.5	1.000015
72000.0	40.8	-59.8		66.6	569.1	331.0	2.9	1.000015
72500.0	39.8	-59.5		64.9	569.5	64.7	3.7	1.000014
73000.0	38.9	-59.0		63.2	570.1	84.3	7.8	1.000014
73500.0	37.9	-58.5		61.6	570.8	90.1	12.2	1.000014
74000.0	37.0	-57.9		60.0	571.5	89.9	11.7	1.000013
74500.0	36.2	-57.4		58.4	572.2	89.0	10.5	1.000013
75000.0	35.3	-56.9		56.9	572.9	84.7	8.7	1.000013
75500.0	34.5	-56.4		55.4	573.5	64.9	5.9	1.000012
76000.0	33.7	-55.9		54.0	574.2	26.3	4.7	1.000012
76500.0	32.9	-55.5		52.6	574.7	355.7	6.2	1.000012
77000.0	32.1	-55.4		51.4	574.9	341.8	8.7	1.000011
77500.0	31.3	-55.3		50.1	575.1	334.5	11.4	1.000011
78000.0	30.6	-55.1		48.9	575.2	333.7	12.5	1.000011
78500.0	29.9	-55.0		47.7	575.4	333.1	13.7	1.000011
79000.0	29.2	-54.8		46.6	575.6	332.4	14.8	1.000010
79500.0	28.5	-54.7		45.5	575.8	331.2	15.0	1.000010
80000.0	27.9	-54.6		44.4	575.9	330.1	15.2	1.000010
80500.0	27.2	-54.5		43.3	576.1	328.7	15.4	1.000010
81000.0	26.6	-54.3		42.3	576.3	326.2	15.1	1.000009
81500.0	26.0	-54.2		41.3	576.5	323.6	14.9	1.000009
82000.0	25.4	-54.1		40.3	576.6	322.4	14.3	1.000009
82500.0	24.8	-53.9		39.4	576.8	325.2	12.4	1.000009
83000.0	24.2	-53.8		38.4	577.0	328.9	10.6	1.000009
83500.0	23.6	-53.7		37.5	577.2	336.0	8.8	1.000008

STATION ALTITUDE 4051.00 FEET MSL  
 31 MAR. 83 0730 HRS MST  
 ASCENSION NO. 63

PP. DATA  
 0500000063  
 JALLEN

ODETIC COORDINATES  
 33.10712 LAT DEG  
 106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.1	-53.5		34.6	577.3	350.8	7.2	1.000008
84500.0	22.5	-53.4		35.7	577.5	12.0	6.2	1.000008
85000.0	22.0	-53.3		34.9	577.7			1.000008
85500.0	21.5	-53.1		34.1	577.8			1.000008
86000.0	21.0	-53.0		33.2	578.0			1.000007
86500.0	20.5	-52.9		32.4	578.2			1.000007

STATION ALTITUDE 4051.00 FEET MSL  
31 MAR. 93 0730 HRS MST  
ASCENSION NO. 63

IND. LEVELS  
05000-0063  
JALLEN

GEODETTIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DEGREES(TN)	SPEED KNOTS	
850.0	4851.	13.9	-3.8	29.	260.5	3.0	
800.0	6527.	13.4	-6.8	24.	220.6	10.3	
750.0	8299.	10.6	-10.6	21.	245.0	19.8	
700.0	10169.	6.5	-17.5	16.	275.2	17.8	
650.0	12146.	2.5	-20.7	10.	279.7	27.2	
600.0	14252.	-2.0	-23.3	18.	286.6	35.7	
550.0	16497.	-7.7	-24.0	20.	288.3	41.2	
500.0	18900.	-14.2	-29.0	27.	282.7	45.3	
450.0	21490.	-20.6	-35.1	26.	287.6	46.2	
400.0	24309.	-27.7	-42.0	24.	288.4	55.7	
350.0	27415.	-35.1	-48.4	24.	283.7	59.5	
300.0	30874.	-44.3			291.8	63.3	
250.0	34808.	-51.9			290.9	79.6	
200.0	39503.	-55.0			289.7	99.5	
175.0	42335.	-51.9			286.4	91.2	
150.0	45584.	-57.1			287.3	80.9	
125.0	49321.	-63.7			287.3	73.3	
100.0	53728.	-70.6			285.5	75.3	
80.0	58054.	-67.7			286.6	38.1	
70.0	60731.	-66.1			276.7	14.1	
60.0	63829.	-61.0			274.5	20.0	
50.0	67549.	-60.6			314.6	8.0	
40.0	72117.	-59.6			50.5	2.9	
30.0	78098.	-55.0			333.2	13.5	
25.0	81929.	-54.0			323.7	13.4	

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES  
 33.41920 LAT DEG  
 106.66501 LON DEG

STATION IDENTIFICATION DATA  
 000000002  
 STATION

STATION ALTITUDE 4940.00 FEET MSL  
 31 MAR. 83 0850 HRS MST  
 ASCENSION NO. 2

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
848.0	13.9	-3.4	10.0
826.1	12.7	-4.0	31.0
809.0	13.8	-4.8	27.0
769.0	11.7	-10.5	20.0
759.2	11.5	-10.6	20.0
700.0	5.3	-15.2	21.0
677.8	2.7	-16.8	22.0
653.4	.6	-19.7	20.0
640.2	1.8	-19.9	18.0
622.1	.2	-19.0	22.0
529.0	-10.4	-24.2	31.0
500.0	-13.9	-29.6	25.0
400.0	-27.2	-40.8	26.0
338.6	-36.7	-47.3	32.0
325.6	-39.2	-48.8	35.0
308.9	-42.7		

STATION ALTITUDE 4940.00 FFEI MSL  
31 MAR. 63 0850 HRS MST  
ASCENSION NO. 2

IPP DATA  
0900004000Z  
STALLION

GEODETIC COORDINATES  
33°41'20" LAT DEG  
106°66'50" LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4940.0	848.0	13.9	-3.4	30.0	1027.0	660.7	130.0	6.0	1.000251
5000.0	846.2	13.8	-3.4	30.1	1025.1	660.6	134.1	5.8	1.000250
5500.0	831.0	13.0	-3.8	30.8	1009.6	654.7	176.8	5.3	1.000246
6000.0	816.1	13.3	-4.5	28.7	990.3	660.1	208.2	7.5	1.000241
6500.0	801.4	13.4	-5.8	25.7	972.4	660.1	223.1	10.8	1.000235
7000.0	787.0	12.7	-7.8	23.2	957.7	659.2	230.7	14.5	1.000229
7500.0	772.8	11.9	-9.9	20.7	943.1	658.2	240.8	14.3	1.000224
8000.0	758.9	11.5	-10.7	20.0	927.6	657.7	250.7	14.6	1.000219
8500.0	745.0	10.1	-11.7	20.2	915.3	656.0	259.2	16.1	1.000216
9000.0	731.4	8.7	-12.7	20.5	903.1	654.4	266.1	18.0	1.000212
9500.0	718.1	7.2	-13.8	20.7	891.1	652.7	268.7	20.3	1.000209
10000.0	704.9	5.8	-14.8	20.9	879.3	651.0	269.4	22.8	1.000205
10500.0	691.9	4.4	-15.8	21.4	867.7	649.3	270.8	25.2	1.000202
11000.0	679.1	2.9	-16.8	21.9	856.4	647.5	274.1	27.2	1.000199
11500.0	666.4	1.7	-18.2	21.1	843.9	646.2	277.2	29.5	1.000195
12000.0	653.9	.6	-19.7	20.0	831.4	644.9	281.1	33.0	1.000192
12500.0	641.7	1.7	-19.9	18.2	812.8	646.1	283.6	36.1	1.000187
13000.0	629.6	.9	-19.3	20.3	799.8	645.1	284.3	37.8	1.000185
13500.0	617.7	-.3	-19.1	22.4	787.9	643.8	284.3	38.6	1.000182
14000.0	605.9	-1.5	-19.7	23.5	776.5	642.3	284.0	38.8	1.000180
14500.0	594.3	-2.8	-20.2	24.5	765.1	640.8	282.8	39.7	1.000177
15000.0	582.9	-4.1	-20.8	25.6	754.0	639.3	281.5	40.7	1.000174
15500.0	571.7	-5.3	-21.5	26.7	743.1	637.8	280.1	41.9	1.000171
16000.0	560.7	-6.6	-22.1	27.8	732.3	636.3	278.7	43.2	1.000169
16500.0	550.0	-7.9	-22.8	28.8	721.7	634.8	277.7	44.5	1.000166
17000.0	539.4	-9.1	-23.5	29.9	711.3	633.2	277.5	46.0	1.000163
17500.0	529.1	-10.4	-24.2	31.0	701.0	631.7	277.3	47.5	1.000161
18000.0	518.7	-11.6	-26.1	28.9	690.5	630.2	278.2	47.7	1.000158
18500.0	508.5	-12.9	-28.0	26.8	680.2	628.7	279.1	47.9	1.000155
19000.0	498.4	-14.1	-29.8	25.0	670.0	627.2	279.1	46.8	1.000152
19500.0	488.3	-15.3	-30.8	25.1	659.5	625.7	278.6	45.2	1.000150
20000.0	478.3	-16.5	-31.8	25.2	649.2	624.2	278.4	45.3	1.000147
20500.0	468.6	-17.8	-32.8	25.3	639.0	622.7	278.5	46.0	1.000145
21000.0	459.1	-19.0	-33.8	25.4	629.1	621.2	279.4	47.4	1.000142
21500.0	449.8	-20.2	-34.9	25.5	619.3	619.7	280.7	49.1	1.000140
22000.0	440.6	-21.4	-35.9	25.6	609.7	618.2	281.8	48.8	1.000137
22500.0	431.7	-22.7	-36.9	25.7	600.2	616.6	282.8	47.8	1.000135
23000.0	422.9	-23.9	-38.0	25.8	590.9	615.1	283.4	47.0	1.000133
23500.0	414.3	-25.1	-39.0	25.8	581.7	613.6	283.8	46.3	1.000131
24000.0	405.9	-26.3	-40.0	25.9	572.7	612.1	283.4	47.1	1.000129

STATION ALTITUDE 4940.00 FEET MSL  
 31 MAR. 83 0850 HRS MST  
 ASCENSION NO. 2

REF. DATA  
 05000-0002  
 STALLION

GEODETIC COORDINATES  
 33°81'20" LAT DEG  
 106°66'50" LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN) SPEED KNOTS	INDEX OF REFRACTION
24500.0	397.5	-27.6	26.2	563.7	610.6	282.8	1.000127
25000.0	389.0	-28.8	27.0	554.5	609.0	282.1	1.000124
25500.0	380.8	-30.0	27.8	545.5	607.5	281.4	1.000122
26000.0	372.7	-31.2	28.5	536.6	606.0	280.3	1.000120
26500.0	364.7	-32.5	29.3	527.8	604.4	278.8	1.000118
27000.0	357.0	-33.7	30.1	519.3	602.9	277.5	1.000116
27500.0	349.4	-34.9	30.9	510.8	601.3	276.5	1.000114
28000.0	341.9	-36.1	31.6	502.6	599.8	275.7	1.000113
28500.0	334.6	-37.5	32.9	494.5	598.1	276.0	1.000111
29000.0	327.3	-38.9	34.6	486.6	596.3	276.3	1.000109
29500.0	320.1	-40.3	23.6**	478.9	594.4		1.000107
30000.0	313.0	-41.8	8.8**	471.3	592.5		1.000105

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 F.E. MSL  
 31 MAR. 83 0850 HRS MST  
 ASCENSION NO. 2

IND. LEVELS  
 0900040002  
 STATION

GEODETIC COORDINATES  
 33.81920 LAT DEG  
 106.66501 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION (DEGREES(TN))	SPEED KNOTS	
800.0	6544.	13.3	-6.0	25.	224.0	11.2	
750.0	8316.	10.6	-11.3	20.	236.4	15.5	
700.0	10182.	5.3	-15.2	21.	269.6	23.8	
650.0	12147.	.9	-19.8	19.	282.1	34.1	
600.0	14251.	-2.2	-20.0	24.	283.4	39.2	
550.0	16405.	-7.9	-22.8	29.	277.7	44.5	
500.0	18898.	-13.9	-29.6	25.	279.1	47.0	
450.0	21492.	-20.2	-34.8	25.	280.7	49.1	
400.0	24316.	-27.2	-40.8	26.	283.0	48.0	
350.0	27424.	-34.8	-45.9	31.	276.6	50.3	

END

DATE  
FILMED

6-83

DTIC